



HumanPRIMED

HUMAN PERFORMANCE RESEARCH & INJURY MITIGATION ENGAGEMENT FOR DEFENCE

HOLISTIC APPROACH TO ENHANCED
HUMAN PERFORMANCE

HumanPRIMED is a community into which Defence and Industry can pose human performance research questions. *HumanPRIMED* rapidly assembles expert research teams to address complex problems and considers the end user experience through the perspectives of technology experts and health professionals.

EXPERIENCE AND CONTEXTUAL UNDERSTANDING

The University's Melbourne Defence Enterprise (MDE) and senior researchers have a deep understanding of the Defence environment and the priorities of the operator and industry suppliers.

Drawing from combined 50 years of Defence sector experience, the MDE is the conduit through which *HumanPRIMED* ensures operational relevance, cultivates contextual understanding and builds external partnerships.

Senior *HumanPRIMED* researchers, including academic lead Professor Peter Lee, have led numerous large Government and Industry funded projects both in the domestic market and for international agencies.

ACCESS TO WORLD CLASS FACILITIES

HumanPRIMED leverages world leading human performance research facilities - such as the unique Computer Assisted Research Environment (CAREN) - and state of the art data collection, visualisation and interpretation tools. A collective approach allows *HumanPRIMED* members and its partners to stay at the forefront of technology implementation.

Whether its high fidelity multi-sensory laboratory experimentation or the integration and interpretation of unobtrusive wearable technologies *in-situ*, *HumanPRIMED* can deliver.

A GRAND CHALLENGE

HumanPRIMED is developing a digital human avatar – The Virtual Soldier. It will combine accurate models of cognitive, physical and physiological performance within integrated and potentially individualised simulations. These simulations could prepare operators for specific scenarios inform equipment for soldiers and teaming strategy, update training modules to mitigate injury and to advise on the human factors of platform integration.

A shared Grand Challenge promotes a sense of community within *HumanPRIMED*, seeds new research ideas and allows programs to leverage one another toward a bolder objective.



THE WORKFORCE OF TOMORROW

HumanPRIMED is building the Defence-centric human performance workforce of the future by establishing a pipeline of talented postgraduate students and early career researchers to the sector. Students undertaking research within *HumanPRIMED* learn Defence client context through key exposure to government and industry bodies, benefit from multi-disciplinary co-supervision of the community and gain real world perspective from the complementary approaches of the technology and health focussed experts.

Talk to us about your Human Performance related challenges.

Contact: defence-technologies@unimelb.edu.au
Visit: eng.unimelb.edu.au/HumanPRIMED